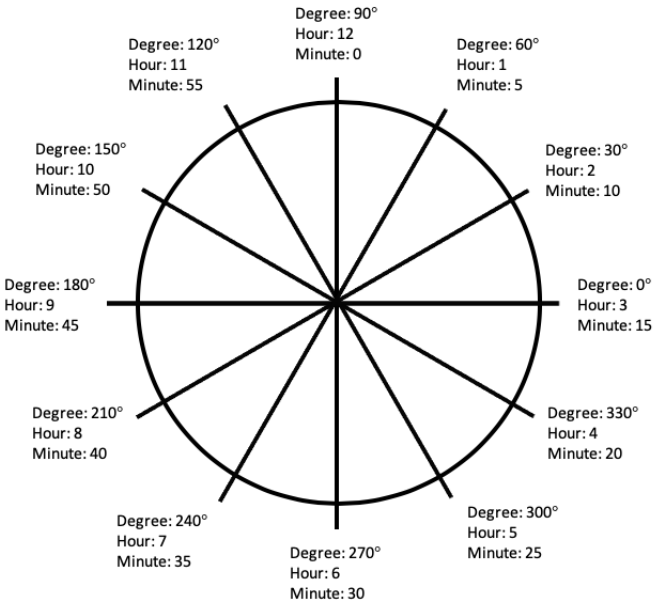
3. Emilia

Program Name: Emilia.java **Input File: emilia.dat**

Emilia just learned about the unit circle in her pre-calculus class. As she was leaving class she realized that the hour and minute hands of an analog clock not only are pointing to their respective hour and minute (representing the current time), but they are also pointing to a degree in range of [0,359] corresponding to the unit circle representation (See below figure). Emilia would like help writing a program that takes in two real numbers representing degrees, one for hour, and one for minute, and emits the corresponding time. Can you help her with this?



Input: Input starts with a line containing an integer N (1 <= N <= 10), the number of test cases. The following N lines, each with two degrees of floating point type, representing the hour degree and minute degree respectively. Hour degree and minute degree will be guaranteed to be in range of 0 <= value < 360.

Output: For each test case, output the corresponding time in the format of HH:MM

Sample input:

```
6
197.5 300.0
171.0 342.0
87.5 60.0
0.0 90.0
359.5 84.0
352.5 0.0
```

Sample output:

```
08:25
09:18
12:05
03:00
03:01
03:15
```